

1126 Motor Vehicle Emissions Inspection Program (DRAFT)

(xx/xx/xx)

1.0 Applicability, ~~and~~ General Provisions and Registration Requirements

1.1 Except as provided in ~~4. 2.0~~ of this regulation, the standards, requirements and procedures set forth in this regulation are applicable to all motor vehicles, model years 1968 and newer light duty passenger cars and light duty trucks up to 8,500 pounds gross vehicle weight rating with the exception of the ~~five~~ seven newest model years, titled and registered ~~with~~ in Sussex County and as specified by the Department, including any motor vehicles owned or operated by the federal, state and local governments and their agencies.

1.2 Effective January 1, 1983, no motor vehicle that is subject to this regulation may be granted registration in the State of Delaware unless the motor vehicle is in compliance with the applicable emissions standards, regardless of its pass/fail status of other tests normally performed at the official inspection station.

02/12/2001

~~4. 2.0~~ Exemptions

4.2.1 The following motor vehicles are exempt from the provisions of this regulation:

4.2.1.1 The seven (7) newest model years beginning with vehicles that are model year 2011 or newer.

4. 2.1.2 All farm vehicles not required by law to be registered.

4.2.1.3 2 All historic vehicles, kit cars or antique vehicles displaying antique vehicle registration plates.

4.2.1.4 3 All motor vehicles with a registered G.V.W. over 8,500 pounds.

4.2.1.5 4 All motorcycles.

4.2.1.6 5 All vehicles that are registered in Delaware, but are not operated in Delaware consistent with established procedures of the Division.

4.1.7 6 ~~All vehicles powered solely by diesel or solely by electricity generated from solar cells or stored in batteries.~~

4.2.2 Any exemption issued to a vehicle under 4.2.0 of this regulation will not have an expiration date and will expire only upon a change in the vehicle status for which exemption was initially granted.

2.3.0 Definitions

“Alternative fuel vehicle” means any vehicle capable of operating on one or more fuels, none of which are gasoline or diesel, and which is subject to emission testing to the same stringency as a similar gasoline or diesel fueled vehicle.

“ASE L1” means “Advanced Engine Performance Specialist Test” certificate as provided by the National Institute for Automotive Service Excellence. The ASE “Advanced Engine Performance Specialist (L1) Test” contains questions that test technicians' knowledge in the diagnosis and repair of computer-controlled engine systems.

“Certified Emission Repair Technician” (CERT) means an automotive repair technician certified by the National Institute for Automotive Service Excellence and has received an ASE L1 “Advanced Engine Performance Specialist Test” certificate or an equivalent certificate from a program approved by the Department and has been issued a permit by the Department.

“Department” means the Delaware Department of Natural Resources and Environmental Control.

“Director” means the Director of the Delaware Division of Motor Vehicles in the Department of Transportation.

“Division” means the Delaware Division of Motor Vehicles in the Department of Transportation. ~~Department of Public Safety of the State of Delaware.~~

“Dual-fuel vehicle” means a vehicle with two fuel storage tanks capable of operating on more than one fuel type, one of which is gasoline and cannot be operated on a mixture of the fuels.

“Emissions” mean products of combustion discharged into the atmosphere from the tailpipe of a motor vehicle engine.

“Emission inspection area” means the emissions inspection area will constitute the entire State effective April 1, 1990.

“Emission standard or standards” mean the maximum concentration of either hydrocarbon (HC) or carbon monoxide (CO), or both, allowed in the emissions from the tailpipe of a motor vehicle as established by the Secretary of the Department of Natural Resources and Environmental Control or his designee in Technical Memorandum #2 entitled "Motor Vehicle Inspection and Maintenance Program - Emission Limit Determination" dated 12/29/87.

“Exhaust emission test” means the curb idle test.

“Failed motor vehicle” “Failed motor vehicle” means any motor vehicle which does not comply with applicable exhaust emission standards, evaporative system function check or on-board diagnostic requirements and emission control device inspection requirements during the initial test or any retest. means any motor vehicle which does not comply with applicable emission standards during the initial test or any retest.

“Flexible fuel vehicle” means any vehicle with one fuel storage tank capable of operating on more than one fuel type, one of which includes gasoline, which must be tested to program standards for gasoline. This is in contrast to alternative fuel vehicles.

“Kit Car” means a car, especially a sports car, assembled by the owner from a set of prefabricated parts supplied by the manufacturer.

“Gross vehicle weight rating” means the vehicle gross weight as designated by the manufacturer as the total weight of the vehicle and its maximum allowable load.

“High emitting vehicle (HEV)” means a vehicle with emissions three times the applicable standard established by Table 4-1 for the exhaust emission test. For applicable 1996 and newer vehicles, an HEV means a vehicle with emissions three times the standard for group 5 in Table 4-1.

“Hybrid electric vehicle” means any vehicle that has two power sources: an electric motor to propel its wheels, and a gasoline engine to recharge the vehicle's electrical storage system. In some configurations the gasoline engine also assists the electric motor with propulsion.

“Inspection Period” means the two-year (biennial) period beginning the date which the vehicle passes inspection.

“LEIM” means the “Low Enhanced Inspection and Maintenance Program.” The purpose of the program is to ensure that emissions of hydrocarbons (HC), and carbon monoxide (CO) from light-duty vehicles in the State of Delaware do not adversely impact public health, safety, and welfare.

“Light duty vehicle” means passenger cars and light duty trucks, rated up to 8,500 pounds gross vehicle weight rating.

“Malfunction Indicator Lamp (MIL)” means the dashboard light on a vehicle that when illuminated indicates an emission control device is not working to the manufacturer's specifications. The MIL is also known as the **“check engine light.”**

“Model year” means the year of manufacture of a vehicle as designated by the manufacturer, or the model year designation assigned by the Division to a vehicle constructed by other than the original manufacturer.

“Motor vehicle” means every vehicle, as defined in 21 Del.C. §101, ~~which is self-propelled, except farm tractors and off-highway vehicles. that is required to undergo inspection by a motor vehicle technician and that would be subject to the emissions testing procedures outlined in this regulation.~~

“Motor vehicle technician officer” means a person who has completed an approved emissions inspection equipment training program, ~~who is both authorized to and performs vehicle inspection requirements and is employed by the Delaware Division of Motor Vehicles or under contract with the State of Delaware. by an official inspection station.~~

~~**“New motor vehicle”** means a motor vehicle of the current or preceding model year that has never been previously titled or registered in this or any other jurisdiction and whose ownership document remains as a manufacturer's certificate of origin.~~

~~**“New model year exemption”** means an exemption of a designated new model year of an applicable vehicle from any or all of the requirements in this regulation. The exemption shall begin on the first day of October of the calendar year, which will be the anniversary date for calculating the applicability of a vehicle for a new model year exemption. For example, a 2010 model year vehicle titled in Delaware in August of 2009 will have an anniversary date of October 1, 2009 and thus does not lose its five seven model year exemption status until October 1, 2016.~~

~~**“On-board diagnostics (OBD)”** means a system of vehicle component and condition monitors controlled by a central, on-board computer designed to signal the motorist when conditions exist which could lead to a vehicle's exceeding its certification standards by 1.5 times the standard.~~

~~**“OBD diagnostic trouble codes (DTCs)”** means a code that provides information on an OBD equipped motor vehicles' emission control system and aide in identifying system malfunctions.~~

~~**“Official inspection station”** means all official Motor Vehicle Inspection place operated by the Division in the State of Delaware. the Motor Vehicle Safety Inspection Stations in Wilmington, New Castle (Delaware City), Dover and Georgetown, Delaware, operated by the Division.~~

“Reasonable cost” means the actual cost of parts and labor which is necessary to cause the failed motor vehicle to comply with applicable emissions standards or which contributes toward compliance. It shall not include the cost of those repairs determined by the Division to be necessary due to alteration or removal of any part of the emission control system of the motor vehicle, or due to any damage resulting from the use of improper fuel in the failed motor vehicle. It shall also not include any safety-related repair costs.

“Reconstructed vehicle” means a vehicle used only for participation in club activities, exhibits, tours, parades, and similar uses, and that are not used for general transportation or 1,000 miles per year.

“Registration Denial” means the rejection of an application for initial registration of a vehicle or re-registration of a used vehicle (i.e., a vehicle being registered after the initial retail sale and associated registration) unless the vehicle has complied with the LEIM program requirement prior to granting the application.

“Registered gross vehicle weight (G.V.W.)” means the vehicle gross weight designated by the Division on the vehicle registration card which is the total weight of the vehicle and its maximum allowable load.

“Registration Period” means the period of time in which a motor vehicle’s license plate, registration and vehicle inspection requirements are met. Motor vehicle registration is required within 90 days of the tag expiration date. Motor vehicles can be renewed for a period of one-year without inspection and two-years with inspection.

“Secretary” means the Secretary of the Delaware Department of Natural Resources and Environmental Control.

“Waiver” means an exemption issued to a motor vehicle that cannot comply with the applicable emissions standard and cannot be repaired for reasonable cost.

05/09/1985

3.0 Registration Requirement

~~Effective January 1, 1983, no motor vehicle that is subject to this regulation may be granted registration in the State of Delaware unless the motor vehicle is in compliance with the applicable emissions standards, regardless of its pass/fail status of other tests normally performed at the official inspection station.~~

~~02/12/2001~~

4.0 Vehicle inspection requirements.

4.1 General provisions.

4.1.1 Each vehicle subject to this regulation shall be inspected at least once every two years at an official inspection station operated by the Division.

4.1.2 All subject fleet vehicles shall be inspected at an official inspection station operated by the Division or at an alternate inspection station approved by the Director.

4.1.3 ~~HC, CO, CO+CO₂ (or CO₂ alone) emission standards shall be applicable to all vehicles subject to the LEIM program and repairs shall be required for failure of any standard.~~

4.1.4 Initial tests (i.e., those occurring for the first time in a test cycle) shall be performed without repair or adjustment at the inspection facility, prior to the test.

4.1.5 An official test, once initiated, shall be performed in its entirety regardless of intermediate outcomes except in the case of invalid test condition or unsafe conditions.

4.1.6 ~~Tests involving measurements shall be performed with equipment that has been calibrated according to the quality control procedures established by the Division.~~

4.1.6 After an initial failure of any portion of any exhaust emission test in the LEIM program, all vehicles shall be retested without repairs being performed. This retest shall be indicated on the records as the second-chance test. After failure of the second-chance test, prior to any subsequent retests, proof of appropriate repairs must be submitted indicating the type of repairs and parts installed (if any). This shall be done by completing the "Vehicle Emissions Repair Report Form" as developed and provided by the Division.

4.1.7 Any vehicle entering the inspection lane while smoking excessively or with coolant, oil, or fuel leaks, or any other such defect that is unsafe, shall be rejected from the testing area.

4.2 Exhaust emission testing procedures and standards.

4.2.1 Exhaust emissions from 1968 to 1995 model year vehicles subject to this regulation shall be equal to or less than the rates specified in Table 4-1; determined pursuant to the following idle test requirements:

4.2.1.1 Tests involving measurements shall be performed with equipment that has been calibrated according to the quality control rocedures established by the Division.Department.

4.2.1.1 2 The motor vehicle technician shall insert a probe at least 9 inches into the exhaust pipe.

4.2.1.2 3 Genuine dual exhaust vehicles shall be tested with a dual exhaust probe.

4.2.1.3 4 The analysis of exhaust gas concentrations shall begin no longer than 10 seconds after the applicable test mode begins.

4.2.1.4 5 Exhaust gas concentrations shall be analyzed at a minimum rate of two times per second. The measured value for pass/fail determinations shall be a simple running average of the measurements taken over five seconds. To meet the standard, engine rotations-per-minute (RPM) should read between 350-1100 RPM.

4.2.1.5 6 The test shall be immediately terminated upon reaching the overall maximum test time of 145 seconds.

4.2.2 Exhaust emissions from 1981 to 1995 model year vehicles subject to this regulation shall be equal to or less than the rates specified in Table 4-1.

<u>TABLE 4-1 EXHAUST EMISSION STANDARDS ACCORDING TO MODEL YEAR (1968-1995)</u>				
<u>Group</u>	<u>Auto/Station Wagons (passenger vehicles)</u>	<u>Pickup/Van under 8501 lbs.</u>	<u>Hydrocarbon (HC) Limit (ppm)</u>	<u>Carbon Monoxide (CO) Limit (%)</u>
<u>1</u>	<u>1968-70</u>	<u>1970-72</u>	<u>900</u>	<u>9.00</u>
<u>2</u>	<u>1971-74</u>	<u>1973-78</u>	<u>600</u>	<u>6.00</u>
<u>3</u>	<u>1975-79</u>	<u>1979-83</u>	<u>400</u>	<u>4.00</u>
<u>4</u>	<u>1980</u>	<u>(none)</u>	<u>220</u>	<u>2.00</u>
<u>5</u>	<u>1981-95</u>	<u>1984-95</u>	<u>220</u>	<u>1.20</u>

4.3 On-board diagnostics procedures and standards.

4.3.1 1996 and later model year vehicles shall be subject to OBD II testing pursuant to the following procedures:

4.3.1.1 The motor vehicle technician shall instruct the vehicle operator to leave the vehicle for this test.

4.3.1.2 The motor vehicle technician shall locate the Diagnostic Link Connector in the vehicle and insert the on-board diagnostic connecting cable.

4.3.1.3 The motor vehicle technician shall shut off the ignition. The ignition must be off for 15 seconds prior to turning back on.

4.3.1.4 The motor vehicle technician will then observe the MIL (malfunction indicator lamp) when the ignition key is in the on position with the engine off. MIL should illuminate.

4.3.1.5 The motor vehicle technician shall start the engine and observe for the MIL to be commanded off.

4.3.1.6 The vehicle's emission control device information from the vehicle's computer shall be transmitted to the DMV on-board diagnostic equipment for the test to be completed successfully.

4.4. Vehicles shall fail the OBD test if:

4.4.1 Malfunction Indicator Light (MIL) is not lit during key on, engine off check of bulb; and/or

4.4.2 MIL is lit (or commanded on) for any Diagnostic Trouble Codes (DTC) during engine on mode;

4.4.3 Data Link Connector (DLC) is damaged, missing, tampered or obstructed by an after-market device

4.4.4 More than two unset readiness codes for model years 1996-2000.

4.4.5 More than one unset readiness code for model years 2001 and newer. If the motor vehicle failed for an evaporative monitor code, then the evaporative monitor must be ready and pass.

4.5 1996 and newer light-duty vehicles and light-duty trucks not equipped by the manufacturer with certified on-board diagnostics systems with the exception of tampered or removed systems shall be required to undergo the emission control device test.

4.6 Visual equipment inspection standards.

4.6.1 1975 and later model year vehicles shall pass a visual inspection of the catalytic converter.

4.6.2 Visual inspection of emission control devices shall be performed through direct observation or through indirect observation using a mirror. These inspections shall include a determination as to whether each subject device is present.

4.6.3 Vehicles shall fail visual inspection of subject emission control devices if such devices are part of the original certified configuration and are found to be missing, modified, disconnected, or improperly connected.

07/06/1982

5.0 Enforcement

Enforcement shall be in accordance with the provisions of 7 Del.C. Ch. 67.

02/12/2001

6.0 On-road inspection standards and test procedures.

6.1 Periodic random Delaware registered vehicle pullovers or on-road testing on Delaware highways may occur without prior notice to the public for on-road vehicle exhaust emission testing.

6.1.1 Vehicles within the LEIM area and identified by the on-road testing portion of the LEIM program as high-emitting vehicles shall be notified of the requirement for an out-of-cycle emission retest, and shall have 30 days from the date of the notice to appear for inspection.

6.1.2 Vehicles not appearing for a retest shall be out of compliance, and be liable for penalties under Title 21 of Delaware Criminal and Traffic Law Manual and the Division shall take action to suspend the vehicle registration.

6.0 Compliance, Waivers and Extensions of Time **7.0 Vehicle emission inspection waivers**

7.1 Waiver issuance criteria.

7.1.1 Motorists shall expend a reasonable cost, as defined in 3.0 of this regulation in order to qualify for a waiver.

7.1.1.1 For vehicles failing the exhaust emissions (tailpipe) test under 4.1-4.2 of this regulation, in order to qualify for waiver, repairs (cost of parts and labor) on any 1981 ~~or~~ later model through 1995 year vehicle shall be performed by a certified emission repair technician (Cert), as defined in 3.0 of this regulation, and must have been appropriate to correct the emission failure.

7.1.1.2 In order to qualify for a waiver, repairs of primary emission control components (cost of parts only) on any 1981 through 1995 vehicle (OBD-equipped vehicles not

included) may be performed by non-permitted technicians (e.g., vehicle owners) and must have been appropriate to correct the emission failure.

7.1.1.3 The waiver would apply to the cost of parts for the repair or replacement of the following list of emission control component systems:

7.1.1.3.1 Air induction system (air filter, oxygen sensor),

7.1.1.3.2 Catalytic converter system (converter, preheat catalyst),

7.1.1.3.3 Thermal reactor,

7.1.1.3.4 EGR system (valve, passage/hose, sensor)

7.1.1.3.5 PCV System, air injection system (air pump, check valve),

7.1.1.3.6 Ignition system (distributor, ignition wires, coil, spark plugs).

7.1.1.3.7 The cost of any hoses, gaskets, belts, clamps, brackets or other emission accessories directly associated with these components may also be applied to the waiver limit.

7.1.1.4 For vehicles failing the on-board diagnostics test under 2.2-4.4 of this regulation in order to qualify for waiver, repairs on any 1996 or later model year vehicle shall be performed by a Certified Emission Repair Technician as defined in 3.0 of this regulation, and must have been appropriate to correct the emission failure.

7.1.2 Any available warranty coverage shall be used to obtain needed repairs before expenditures can be counted towards the cost limits in 7.1.4 of this regulation. The owner or operator of a vehicle within the statutory age and mileage coverage under the engine warranty requirements found in section 207(b) of the Clean Air Act shall present a written denial of warranty coverage from the manufacturer or authorized dealer for this provision to be waived for approved tests applicable to the vehicle.

7.1.3 Original receipts shall be submitted for review to further verify that qualifying repairs were performed. Original receipts cannot be used more than once for verification.

- 7.1.4 The minimum expenditure for waivers was \$75 for (1968-1980) model year vehicles or a minimum expenditure of \$200 for 1981 model year and newer vehicles had to be spent in order to qualify for a waiver.
- 7.1.5 For New Castle and Kent Counties, ~~†~~The minimum expenditure for repairs for 1981 and newer vehicles shall increase to \$450 starting January 1, 2000. For each subsequent year, the \$450 minimum expenditure shall be adjusted in January of that year by the percentage, if any, by which the Consumer Price Index for the preceding calendar year differs from the Consumer Price Index for 1989.
- 7.1.6. Effective January 1, 2019 in Sussex County, the minimum expenditure for repairs shall increase by \$200 each year until the expenditure for repairs reaches parity with the current minimum expenditure for repairs in New Castle and Kent Counties. This change will allow for a statewide I/M Program with identical inspection requirements in all three Delaware counties.
- 7.1.7 The issuance of a waiver applies only to those vehicles failing an exhaust emission or non-evaporative on-board diagnostics tests. No waivers are granted to vehicles failing the evaporative emission integrity test.
- 7.1.8 Waivers shall be issued by the Director or his/her designee only after a vehicle has failed a retest for only the exhaust emissions or on-board diagnostic portions of the inspection, performed after all qualifying repairs have been completed or non-evaporative emissions codes have been cleared;
- 7.1. 9 Qualifying repairs include repairs of primary emission control components as defined in 7.1.1.2 performed within 90 days of the initial test date.
- 7.1.10 Waivers issued pursuant to this regulation are valid until the expiration of the current vehicle inspection period.
- 7.1.11 Waivers shall not be issued to vehicles for tampering-related repairs. The cost of tampering related repairs shall not be applicable to the minimum expenditure in 7.1. 4-of this regulation. The Director shall issue exemptions for tampering-related repairs if it can be verified that the part in question or one similar to it is no longer available for sale.

~~6.1 Compliance with applicable emissions standards shall be determined at an official inspection station. The idle test procedure prescribed by the Department in~~

~~Technical Memorandum #1 entitled "Motor Vehicle Inspection and Maintenance Program—Vehicle Test Procedure and Machine Calibration", dated 6/9/82, shall be the official test procedure. A pass/fail printout from the emission testing equipment given to the driver will serve as the driver's record of the test results. Vehicles shall be pre-inspected prior to the emission inspection, and shall be prohibited from testing should any unsafe conditions be found. These unsafe conditions include, but are not limited to significant exhaust leaks, and significant fluid leaks. The Division and the Department shall not be responsible for major vehicle component failures during the test, of parts which were deficient or excessively worn prior to the start of the test.~~

~~6.1.1 Any motor vehicle shall be deemed to be in compliance with 3.0 of this regulation if the test results are equal to or less than the emissions standards applicable to the motor vehicle.~~

~~6.1.2 Except as provided in 6.1.3 of this regulation, any motor vehicle shall be deemed to be in noncompliance with 3.0 of this regulation if the test results are greater than the emissions standards applicable to the motor vehicle.~~

~~6.1.3 Any motor vehicle which fails its initial emissions test shall be deemed to be in compliance with 3.0 of this regulation if not later than the registration expiration date, the motor vehicle either (1) is repaired at reasonable cost and is in compliance with applicable emissions standards as determined by an emissions retest at an Official Inspection Station, or (2) is granted a waiver pursuant to 6.2 of this regulation, or (3) is granted an extension of time not to exceed one month.~~

~~6.1.4 Whenever the owner of a failed motor vehicle determines to the satisfaction of the Division that it cannot be repaired at reasonable cost, the owner may be granted a waiver provided the owner makes application to the Division prior to the registration expiration date or by such other time as may be specified by the Division.~~

~~6.1.5 Vehicles powered solely by a "clean fuel" such as compressed natural gas, propane, alcohol and similar non-gasoline fuels shall be required to report for inspection to the same emission levels as gasoline powered cars until standards for clean fuel vehicles become available and are adopted by the State.~~

~~6.1.6 Vehicles able to be powered by more than one fuel, such as compressed natural gas or gasoline, must be tested and pass emissions standards for all fuels when such standards have become adopted by the Department.~~

~~6.2 Waiver issuance criteria~~

~~6.2.1 Waivers shall be issued only after a vehicle has failed a retest performed after all qualifying repairs have been completed,~~

~~6.2.2 Any available warranty coverage shall be used to obtain needed repairs before expenditures can be counted towards the cost limits in 6.2.4 of this regulation. The operator of a vehicle within the statutory age and mileage coverage under Section 207(b) of the Clean Air Act shall present a written denial of warranty coverage from the manufacturer or authorized dealer for this provision to be waived for approved tests applicable to the vehicle.~~

~~6.2.3 Waivers shall not be issued to vehicles for tampering-related repairs. The cost of tampering-related repairs shall not be applicable to the minimum expenditure in~~

~~6.2.4 of this regulation. An exemption for tampering-related repairs may be issued if it can be verified that the part in question or one similar to it is no longer available for sale.~~

~~Repairs shall be appropriate to the cause of the test failure, and a visual check shall be made to determine if repairs were actually made if, given the nature of the repair, it can be visually confirmed. Receipts shall be submitted for review to further verify that qualifying repairs were performed.~~

~~6.2.4 A minimum of \$75 for pre-81 vehicles and \$200 for 1981 and later vehicles shall be spent on related repairs in order to qualify for a waiver. This minimum cost should not be construed as an amount which must be spent as a condition of compliance after an initial failure. This cost relates only to the minimum cost which must be incurred when determining the eligibility of granting a waiver. In addition, this regulation does not prevent the vehicle owner from performing self repairs self-repairs.~~

~~6.3 The Division shall be responsible for specifying any forms or procedures to be followed in making applications pursuant to 6.2 4.1.5 of this regulation.~~

~~6.4 Waivers issued pursuant to this regulation are valid until the date of current registration expiration.~~

~~6.5 Quality control of waiver issuance.~~

~~6.5.1 The program shall include methods of informing vehicle owners or lessors of potential warranty coverage, and ways to obtain warranty repairs.~~

~~6.5.2 The program shall insure ensure that repair receipts are authentic and cannot be revised or reused.~~

~~6.5.3 The program shall insure ensure that waivers are only valid for one test cycle.~~

~~6.6 Compliance via diagnostics inspection.~~

~~Vehicles subject to an emission test at the exhaust emission standards shown in Table 4.1 of this regulation may be issued a certificate of compliance without meeting the prescribed emission exhaust emission standards, if after failing a retest on emissions, a complete, documented physical and functional diagnosis and inspection performed by a certified emission repair technician shows that no additional emission related repairs are needed.~~

07/06/1982

~~7.0 Inspection Facility Requirements~~

~~7.1 Motor Vehicle Officers employed by the Division shall meet the requirements specified in this regulation.~~

~~7.2 Test equipment used by the Division shall be a type approved by the Department and testing procedures shall be conducted in accordance with the provisions of this regulation.~~

~~7.3 No person employed by the Division to test motor vehicle emissions shall engage in or have an interest in the operation of repair facilities located in this State; perform emission related repairs for compensation; or recommend repair facilities to owners or operators of vehicles being tested.~~

07/06/1982

~~8.0 Certification of Motor Vehicle Officers Certified Emission Repair Technicians~~

~~8.1 A person may not perform the duties of a motor vehicle officer for testing motor vehicle emissions or operating emission testing equipment to determine the compliance or noncompliance of a motor vehicle as required by this regulation at an official inspection station unless that person has applied for and has received certification in accordance with the provisions of 8.0 of this regulation.~~

~~8.2 To become certified, a person shall successfully complete a training course for this purpose approved by the Division.~~

8.1 Emission repair technician certification.

8.1.1 An emission repair technician may be certified as trained to do emission repairs on all makes of vehicles or vehicles of a specific manufacturer. Auto repair technicians seeking to become certified under 7 DE Admin Code 1126 shall meet one of the following requirements:

8.1.1.1 Applicants currently certified by the Department as of 06/11/2012 shall have up to 06/11/2017 to become ASE-

L1 certified or present certification from an equivalent program which is approved by the Department.

8.1.1.2 Applicants that are currently ASE-L1 certified as of 06/11/2012 shall be permitted by the Department for the period the ASE-L1 certification is current.

8.1.1.3 New applicants shall be ASE-L1 certified or present certification from an equivalent program which is approved by the Department and the Division.

8.1.2 A certified emission repair technician permit or any renewal thereof shall be valid for a period not to exceed five years from the date of issuance, unless sooner revoked by order of the Department, and may be renewed upon application to and approval by the Department.

8.1.3 At the time of application to receive certification, a certified emission repair technician shall also make application in accordance with 8.3 of this regulation to receive a permit to conduct drive-cycle testing of vehicles that are not in compliance with 21 Del.C. §2115.

8.2 Vehicle drive-cycle testing permit.

8.2.1 Applicability.

Vehicle drive-cycle testing permits shall be issued to all certified emission repair technicians to conduct drive-cycle testing of vehicles that are not in compliance with 21 Del.C. §2115.

8.2.2 General provisions.

8.2.2.1 This regulation establishes the procedures that satisfy the requirement of 7 Del.C. Ch. 67§ 6709 to provide a permit to certified emission repair technicians to conduct drive-cycle testing of vehicles that are not in compliance with 21 Del.C. §2115.

8.2.2.2 Any permit issued by the Department pursuant to this regulation shall not relieve the certified emission repair technician of the responsibility of complying with applicable local, State, and Federal laws and regulations.

8.2.3 Cancellation of permits.

The Department may cancel the vehicle drive-cycle testing permit if the certified emission repair technician fails to maintain their certification as required by 8.1 of this regulation.

8.2.4 Action on applications.

8.2.4.1 If an application is disapproved, the Department shall set forth its objections in the notice of disapproval.

8.2.4.2 Upon issuing the permit for vehicle drive-cycle testing, the Department shall give notice of such approval to any person who has submitted a written request for such notice.

8.2.5 Transfer of permit prohibited.

No person shall transfer a vehicle drive-cycle testing permit to another person.

8.2.6 Availability of permit.

Any permit issued by the Department pursuant to 8.0 of this regulation shall be in the possession of the certified emission repair technician when operating any vehicle that is not in compliance with 21 Del.C. §2115 in order to conduct drive-cycle testing.

8.3 Permit application.

8.3.1 Any person identified in 8.1 of this regulation shall submit to the Department a complete application for a vehicle drive-cycle testing permit on forms furnished by the Department. Permit application forms are available online or from the Department upon request.

8.3.2 The application shall include the following:

8.3.2.1 Applicant's contact information.

8.3.2.2 Applicant's emission repair certification information.

8.3.2.3 Name of certifying organization.

8.3.2.4 Date certified.

8.3.2.5 Date certification expires.

8.3.2.6 The application shall contain the following language from the applicant: "I certify, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete."

8.3.3 The applicant shall submit any additional information requested by the Department deemed necessary to process the application.

8.4 Permit fees.

8.4.1 Pursuant to with 7 Del.C. §6706, the Department may establish permit fees to recover costs reasonably related to the issuance of such permits.

8.4.2 The permit fee shall be \$125 for the five year period (which shall be a pro-rated permit fee of \$25 per year for each year or partial year of the permit) covering the permit and certification of the certified emission repair technician.

02/12/2001

9.0 Calibration and Test Procedures and Approved Equipment

9.1 All emissions testing for the purpose of determining compliance with emissions standards shall be performed using equipment approved by the Department and calibration and test procedures as provided in this regulation.

9.2 Calibration : Reserved.

9.3 Test Procedures: ~~See Technical Memorandum #1~~ See SIP PFI Appendix G.

4 DE Reg. 1261 (02/01/01)

12 DE Reg. 347 (09/01/08)

9.0 10.0 Enforcement and Registration Denial

910.1 Vehicle registration enforcement is the express responsibility of the Division with the assistance of police agencies for on road enforcement and verification.

910.2 The Division shall provide an external, readily visible means of determining vehicle compliance with the registration requirement to facilitate enforcement of the program.

~~TECHNICAL MEMORANDUM #1~~

~~DELAWARE DIVISION OF MOTOR VEHICLES VEHICLE EXHAUST EMISSIONS TEST~~

~~1.0 Purpose:~~

~~To describe the details of the DMV exhaust emissions test for HC and CO using DE '95 Inspection system composed of exhaust emissions and pressure test analyzers manufactured by Environmental Systems Products, Inc., E. Granby, CT (ESP)~~

~~2.0 Applicability:~~

~~Applicable to all gasoline (or alternate fueled) vehicles presented for inspection (regular renewal) in Delaware.~~

~~3.0 Associated Materials:~~

~~3.1 ESP Lane Operator's Manual, Version #2 (1997)~~

~~3.2 DMV 9701 Gas Calibration~~

~~3.3 ESP DW6 HT202561 (Rev. L 06/27/95)~~

~~3.4 Delaware exhaust emissions specification limits~~

~~3.5 ESP BAR 90 Certification for analyzer bench~~

~~3.6 ESP exhaust emissions measurement system P/N ESP 10364-2~~

~~4.0 Procedure: (The referenced equipment is located at Step #1 of the DMV Inspection process)~~

~~4.1 The lane analyzer has successfully passed the calibration procedure or procedures noted in Sections 2.1-2.2 of the ESP Lane Operator's Manual and DMV9701.~~

~~4.2 The Certified DMV Technician has verified that the vehicle presented is a viable candidate for an exhaust emissions analysis using DE '95 equipment.~~

~~4.3 The DMV Technician verifies that the following criteria are satisfied prior to emissions analysis:~~

~~4.3.1 Analyzer is "clean"; a HC hang-up condition exists when HC reading is greater than 40 PPM and the analyzer "locks-out" until the purge indicates "clean".~~

~~4.3.2 After the Technician inserts the exhaust pipe probe insertion (see note (a)), to a minimum of 10 inches, the resultant sample dilution ($\text{CO} + \text{CO}_2$) must exceed 6.0%. The analyzer indicates the presence of a failure condition ($\text{CO} + \text{CO}_2 < 6.0\%$) and indicates "test voided". If the ($\text{CO} + \text{CO}_2$) condition is not satisfied, the subject vehicle FAILS the Delaware Emissions Test.~~

~~(a) Normally, the vehicle driver has been requested to "fast idle" the vehicle for 30 seconds prior to entering the inspection lane, however, the Technician does not verify this condition.~~

~~4.4 When those conditions indicated in 4.3 of this memorandum are satisfied, the analyzer begins a timed emissions test. The following sequence prevails:~~

~~4.4.1 The test sequence is:~~

~~4.4.1.1 The internal timer starts; the analyzer "collects" samples for 15 seconds at a rate of two samples per second;~~

~~4.4.1.2 At the 15 second interval, the analyzer compares the accumulated data to the applicable DE emissions specification for Hydrocarbons HC and Carbon Monoxide CO;~~

~~4.4.1.3 Should the analyzer determine that the accumulated data does not exceed specifications for both components, it stops testing and indicates that the vehicle has passed emissions testing;~~

~~4.4.1.4 If the above analysis indicates that the applicable specifications limits are exceeded, sampling continues at the prescribed rate for an additional 15 seconds;~~

~~4.4.1.5 During this additional 15 second interval the analyzer continually compares the resultant data to the applicable DE specification. If, during this time, the HC & CO data are within specification, sampling ceases and a PASS indication is indicated; If, at the end of a 30 second sampling, either or both the HC and CO data exceed specification, testing is terminated and a FAILURE is noted. An immediate exhaust emissions retest is provided to all vehicles failing their initial emissions test. Subsequent "retests" shall only be performed after a properly completed "DMV VEHICLE EMISSIONS REPAIR FORM" is presented.~~

Revised 12/29/1987

TECHNICAL MEMORANDUM #2

MOTOR VEHICLE INSPECTION AND MAINTENANCE PROGRAM EMISSION LIMIT DETERMINATION

~~The five vehicle age groups have different allowable emission rates in the idle mode due to the sophistication of the emission control equipment installed by the manufacturer. The only exception being the pre-1968 age group which had no pollution control apparatus, saved for a few vehicles with positive crankcase ventilation (PCV) valves. Installation of PCV valves was virtually a voluntary measure by auto manufacturers.~~

~~During the time period March 1 through June 30, 1982, data was being gathered by a mandatory emission inspection with voluntary repair, at the two vehicle safety inspection lanes in New Castle County. The Sun Model CEA-3023 Computer Emission Analyzer (hereafter called the analyzer) has the ability to store, on conventional data cassettes, all of the input required and the results of a test on every vehicle tested. This is to include date, time, vehicle age group, vehicle registration number, hydrocarbon (HC) and carbon monoxide (CO) emission limits for the particular vehicle age group and the actual HC and CO emissions from the tested vehicle. A paper printout of this information is given to the driver upon being tested. Test procedures were consistent with those described in Appendix B to Technical Memorandum #1.~~

~~During the voluntary emission program, the HC and CO emission limits programmed into the analyzer were, with one exception, the same as those used by the State of New Jersey in its I & M program. Using these limits or "cut points" for each vehicle type gave a very good frame of reference to analyze the limits applicable to Delaware.~~

~~In general, about 25% of the vehicles tested during that voluntary program failed to pass the New Jersey standards.~~

~~Emission limits for each age group and the failure rate as a percent are shown in Table 1 of this memorandum.~~

Table 1

Age Group	HC ⁽¹⁾
pre 1968	1400-18%
1968-1970	700-22
1971-1974	500-20%
1975-1979	300-29%
1980+	100-15%

Notes: ⁽¹⁾ ~~Hydrocarbon (HC) emissions expressed as parts per million (ppm) of non-methane HC.~~

⁽²⁾ ~~The New Jersey standards for 1980 and later models are 300 ppm of HC.~~

~~The rate of emission reduction required by the I & M program adoption must be at least 35% reduction of total HC emissions from tailpipe at the end of 1987. The 35% is defined as the difference in emissions of HC between the vehicle fleet not having I & M and that having I & M, in the urbanized portion of the ozone non-attainment area. Since the mechanics of testing only those vehicles registered to an address within the "urbanized"⁽¹⁾ area would be difficult at best, the entire county was included in the calculations for reductions.⁽²⁾ The types of vehicles to be tested for emissions were broadened to include the two classes of light duty trucks, those under 6,000 pounds G.V.W. and those in the 6,000 to 8,500 pound G.V.W. class. These two measures reduced the estimated failure rate from the 20% of the urbanized auto and station wagon fleet, which is the target rate to accomplish the 35% reduction in the emissions, down to 15%.~~

~~Attached as Appendix A to this Technical Memorandum is an April 16, 1982, letter from the I & M staff at EPA's Ann Arbor office. This letter details their evaluation of a 10% stringency factor on the three LD classes of vehicles in NCC to provide at least 35% reduction in tailpipe emissions. Following up the EPA analysis is a similar analysis for the Delaware-specific data. With a 15% stringency factor the results show that a 39.7% reduction in HC will be realized when the same 1,083 factor for "entire county inspection" is applied. This is obviously a reduction in tailpipe HC emissions adequate to meet the EPA requirements.~~

~~The selection of cut points for each vehicle class was accomplished by computer storage and retrieval of the data. For each vehicle age group, the frequency of each emission reading was determined and the appropriate percentile selected as the cut point for that particular age group. For simplicity and reduced computer storage requirements each individual reading was grouped in sets of 5 ppm, in the case of HC, and in sets of 0.05%, in the case of CO.~~

~~Light duty trucks (pickups and vans) have different levels of emission controls than those of autos. Age groups of the two light duty gasoline truck classes LDGT1⁽³⁾ and LDGT2⁽⁴⁾ had to be fit into one of the auto age group levels of emission control. This determination was made by utilizing Table 7 of the January, 1981, EPA document entitled "Recommendations Regarding the Selection of Idle Emission Inspection Cut-points for Inspection and Maintenance Programs". The final result of this exercise is shown in Table 2 of this memorandum, and this table represents the cut-points adopted in the 1982 S.I.P. revision. Since the County of New Castle is non-attainment for ozone which is affected by HC, the rates shown for CO will be recorded, but failure of CO limits will not affect registration of the vehicle.~~

~~⁽¹⁾ The urbanized area as defined by the U.S. Bureau of the Census.~~

~~⁽²⁾ This expanded the potential vehicle fleet by a factor of 1.083 which is the ratio of total NCC population to the urbanized area population.~~

⁽³⁾ ~~Truck with GVW less than 6,000 pounds~~

⁽⁴⁾ ~~Truck with GVW greater than 6,000 but less than 8,500 pounds~~

Table 2

LDGV	LDGT1	LDGT2	HC
pre-1968	pre-1968	pre-1970	1600 ppm
1968-1971	1968-1970	1970-1972	1100 ppm
1972-1974	1971-1974	1973-1978	800 ppm
1975-1979	1975 & later	1979 & later	600 ppm
1980 & later	-	-	235 ppm

*The emission limit of 235 ppm for 1980+ vehicles is the "warranty" emission limit of 220 ppm plus the accuracy of the testing equipment (+/- 15 ppm)

REVISION NUMBER 1 - 5/9/85

The following changes are made effective July 1, 1985, and consist of revisions to existing Table 2 of the approved 1982 Ozone SIP Revision

Table 2 (As Revised)

LDGV	LDGT	HC
1968-1970	1970-1972	1100 ppm
1971-1974	1973-1978	800 ppm
1975-1979	1979-1983	550 ppm
1980	-	275 ppm
1981 & later	1984 & later	220 ppm

Whenever the Department determines that the cut-points used during 1985 or any subsequent year do not provide the minimal required hydrocarbon reduction, the following cut-points will become effective on the first day of a new calendar year.

Table 2

LDGV	LDGT	HC
1968-1970	1970-1972	1000 ppm
1971-1974	1973-1978	700 ppm
1975-1979	1979-1983	450 ppm

1980	-	275 ppm
1981 & later	1984 & later	220 ppm

~~This determination shall be based on vehicle test data from the first 10 months of the past year. Public notice prominently placed in the Wilmington newspapers will announce details of the changes and the circumstances which caused the adjustments to be made.~~

~~REVISION NUMBER 2 - 12/29/87~~

~~The following changes are made effective January 1, 1988, and consist of revisions to existing Table 2 of the approved 1982 Ozone SIP Revision.~~

~~Table 2 (As Revised)~~

LDGV	LDGT	HC
1968-1970	1970-1972	900 ppm
1971-1974	1973-1978	600 ppm
1975-1979	1979-1983	400 ppm
1980	-	220 ppm
1981 & later	1984 & later	220 ppm

~~Whenever the Department determines that the cutpoints cut-points used during 1988 or any subsequent year do not provide the minimal required hydrocarbon reduction, the following cutpoints cut-points will become effective on the first day of a new calendar year.~~

~~Table 2 (As Revised)~~

LDGV	LDGT	HC
1968-1970	1970-1972	800 ppm
1971-1974	1973-1978	500 ppm
1975-1979	1979-1983	350 ppm
1980	-	220 ppm
1981 & later	1981 & later	220 ppm

~~This determination shall be based on vehicle test data from the first 10 months of the past year. Public notice prominently placed in the Wilmington newspapers will announce details of the changes and the circumstances which caused the adjustments to be made.~~

~~A. The following changes are made effective January 31, 1990, and will be retained indefinitely unless circumstances occur which will be described in Part B.~~

TABLE 2

GROUP	AUTO/ STA. WAG.	PICKUP/V AN UNDER 8501#	HYDROCARB ON LIMIT	CARBON DIOXIDE LIMIT
1)	68-70	70-72	900 ppm	9.00
2)	71-74	73-78	600 ppm	6.00
3)	75-79	79-83	400 ppm	4.00
4)	80	(NONE)	220 ppm	2.00
5)	81+	84+	220 ppm	1.20

B. Whenever the Department determines that the cutpoints cut points proposed in Part A do not provide the minimal required hydrocarbon reduction, the following cutpoints cut points will become effective on the first day of calendar quarter (i.e. January, April, July or October).

TABLE 2

GROUP	AUTO/ STA. WAG.	PICKUP/V AN UNDER 8501#	HYDROCARB ON LIMIT	CARBON MONOXIDE LIMIT(%)
1)	68-70	70-72	800 ppm	8.00
2)	71-74	73-78	500 ppm	5.00
3)	75-79	79-83	350 ppm	3.50
4)	80	(NONE)	220 ppm	2.00
5)	81+	84+	220 ppm	1.20